

Application No. 09/901,581
Office Action dated October 14, 2005
Amendment After Final Rejection dated December 14, 2005

REMARKS

Claims 1, 3-7 and 10-19 remain pending in the present application, with Claims 2, 8 and 9 (and previously presented Claim 19) having been withdrawn from active consideration.

Claim 1 has been amended, support for which is replete throughout the application. Applicant has introduced this amendment due to the Examiner's invitation in the Action at page 5, paragraph 5, second and fourth sentences.

Claims 13 and 14 have also been amended to correct antecedent basis issues.

The specification has been amended along the lines suggested by the Examiner.

Applicant gratefully acknowledges the Examiner's indication that the Section 112, second paragraph, rejection as to Claims 5, 11 and 15 has been resolved.

Applicant submits that Claim 19 should not have been withdrawn, as it specifies epoxy resins in a manner like Claim 18, which is under active consideration. Consideration of Claim 19 on the merits is requested.

Objection to Specification

Applicant has amended the specification consistent with the Examiner's suggestion at page 14, lines 3-5.

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Section 112 Rejections

Claim 14 stands rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite, for the reasons given at pages 2-3 of the Action.

Applicant has amended Claim 14 (and Claim 13) in a manner intended to address the Section 112 rejections.

As such, reconsideration and withdrawal of the Section 112 rejection of Claim 14 is requested.

Section 103(a) Rejections

A. Claims 1 and 3-7 remain, and Claim 18 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over PCT' 196 for the reasons given at page 3, paragraph 2 of the Action.

B. Claims 1 and 3-7 remain, and Claim 18 stands rejected under Section 103(a) as allegedly being unpatentable over JP '480, JP '809 and JP '941, Hino, Zhou and Nguyen in view of Shah; CA abstract no. 1991:610244 of the Modern Paint and Coatings by Dante, CA abstract no. 1991:538279 of the Proceedings of the Water-Borne and Higher-Solids Coatings Symposium by Dante, Japanese Patent Document Nos. 61-84409 and 61-181870, CA abstract no. 1970:404471 of the Plasticke Hmoty a

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Kaucuk by Fiala and Stange, for the reasons given at page 4 of the Action.

C. Claims 1 and 3-7 remain, and Claim 18 stands rejected under Section 103(a) as allegedly being unpatentable over JP '409 and JP '870, Shah and PCT '738 in view of PCT '196 and Chau for the reasons given at page 4 of the Action.

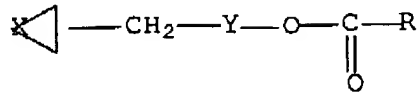
D. Claims 10-14 remain rejected under Section 103(a) as allegedly being unpatentable over PCT '196, JP '480, Nguyen in view of Shah; the Modern Paint and Coatings article abstract, the Proceedings of the Water-Borne and Higher-Solids Coatings Symposium article abstract, JP '409 and '870, the Plasticke Hmoty a Kaucuk article abstract and Stange for the reasons given at page 5 of the Action.

E. Claims 15-17 remain rejected under Section 103(a) as allegedly being unpatentable over PCT '196 in view of PCT '738 and Shah for the reasons given at page 5 of the Action.

Applicant traverses the Section 103(a) rejections.

As the Examiner is aware, the present invention as defined by Claim 1 is directed to and claims a thermosetting resin composition. The composition includes an epoxy resin component; a curing agent component; a coreactant, at least a portion of which is represented by the following structure:

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where X represents the heteroatoms, oxygen or sulfur; Y may or may not be present, and when present represents alkyl, alkenyl, or aryl; and R represents alkyl, alkenyl, or aryl; and a stabilizer comprising a cyanate ester. Reaction products of this composition are controllably degradable.

Applicant has amended Claim 1 to require that when the composition is exposed to temperature conditions in excess of those used to cure the composition, the reaction products soften and lose their adhesiveness.

Applicant will address each Section 103 rejection in turn.

Set A Rejection

PCT '196 is discussed in Applicant's Amendment dated September 30, 2005, reference to which is incorporated herein.

PCT '196 does not relate to the ability of the composition so described being controllably degradable, thus lending reworkability in the event of failure. Instead, PCT '196 speaks to achieving certain gel times at a given temperature.

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The Examiner has noted at page 3 of the Action that language in PCT '196 on page 13, lines 7-13 "is virtually identical to that set forth in the instant specification on page 20, lines 10-17." Indeed, that is correct; however, what the Examiner has failed to appreciate is that though a defective semiconductor chip can be removed from a circuit board, that act does not necessarily have to be achieved by warming the cured composition that adheres the chip to the board. Rather, mechanical ways may also be used. In fact, mechanical ways are more conventional and may be more desirable, particularly in the instance where the decomposition temperature of the cured composition is so high that heating to such a temperature may compromise the integrity of the remaining semiconductor chips and devices on the board.

Applicant submits that without speaking to degradability of the cured composition, it is an improper stretch for the Examiner to extend the express disclosure of PCT '196 to reach the invention as claimed in the subject application.

As such, Applicant respectfully submits that the Section 103(a) rejection of Claims 1 and 3-7 (and now Claim 18) over PCT '196 is misplaced and thus should be withdrawn.

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Set B Rejection

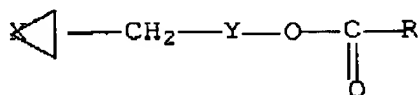
Applicant discusses each of these thirteen separate documents in turn and shows how their combination cannot render Claims 1, 3-7 and 18 unpatentable thereover.

JP '480, JP '809, JP '941, Hino, Zhou, Nguyen, Shah, CA abstract '244, CA abstract '279, JP '409, JP '870, Fiala, Stange discussed in Applicant's Amendment dated September 30, 2005, reference to which is incorporated herein.

Applicant respectfully points out that it is the combination of:

- (a) an epoxy resin component;
- (b) a curing agent component;
- (c) a coreactant, at least a portion of which

is represented by the following structure:



where X represents the heteroatoms, oxygen or sulfur; Y may or may not be present, and when present represents alkyl, alkenyl, or aryl; and R represents alkyl, alkenyl, or aryl; and

- (d) a stabilizer comprising a cyanate ester, which allows the reaction products of the composition, when exposed to temperature conditions in excess of those used to

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cure the composition, to soften and loose their adhesiveness thereby providing controlled degradability.

None of the cited documents of record, individually or collectively, recognize that this combination can yield that desirable physical property.

The Examiner has thus failed to make out a prima facie case of obviousness in the Set B Rejection as that vast number of sources, even if properly combinable (which Applicant disputes), still fails to disclose, teach or suggest the invention as so claimed.

Accordingly, Applicant requests reconsideration and withdrawal of the Section 103 rejections set out in rejection set B, without the use of hindsight in doing so.

Set C Rejections

JP '409, JP '809, Shah, PCT '738 and Chau are discussed in Applicant's Amendment dated September 30, 2005, reference to which is incorporated herein.

As noted above, Applicant has claimed a specific combination of components in order to achieve a composition, whose reaction products are controllable degradable. None of the cited documents of record, whether individually or

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collectively, disclose, teach or suggest that combination or the specific physical property so achieved.

Accordingly, Applicant requests reconsideration and withdrawal of the Section 103 rejections set out in rejection set C.

Set D Rejections

The documents cited against these claims are described above are discussed in Applicant's Amendment dated September 30, 2005, reference to which is incorporated herein.

Once again, Applicant submits that the Examiner's determination is of no moment.

As noted above, Applicant has claimed a specific combination of components in order to achieve a composition, whose reaction products are controllable degradable. None of the cited documents of record, whether individually or collectively, disclose, teach or suggest that combination or the specific physical property so achieved.

Accordingly, Applicant requests reconsideration and withdrawal of the Section 103 rejections set out in rejection set D.

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Set E Rejections

The documents cited against these claims are described above are discussed in Applicant's Amendment dated September 30, 2005, reference to which is incorporated herein.

Yet once again, Applicant submits that the Examiner's determination is of no moment.

As noted above, Applicant has claimed a specific combination of components in order to achieve a composition, whose reaction products are controllable degradable. None of the cited documents of record, whether individually or collectively, disclose, teach or suggest that combination or the specific physical property so achieved.

Accordingly, Applicant requests reconsideration and withdrawal of the Section 103 rejections set out in rejection set E.

The Examiner in these Section 103 rejections has taken a hindsight approach to the examination of this application, which is evident from the vast number of sources used to attempt to cobble together the various obviousness positions. None of the cited documents of record provide motivation to look to one another to reach the invention as now claimed. Hindsight can find no place in the examination process, which is a well-

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settled principle, yet that is the only way the obviousness positions could have been constructed.

Although the number of references used is not determinative, "[t]he requisite prior art suggestion to combine becomes less plausible when the necessary elements can only be found in a large number of references." 2 *Chisum on Patents* § 5.04[1][e][vi].

Thus, the Examiner is respectfully requested to reconsider and withdraw these Section 103 rejections.

Miscellaneous

Applicant gratefully acknowledges the indication that citations listed, but struck through, on the previously filed PTO-1449 Form would be considered upon resubmission of pages 1-3 of the Information Disclosure Statement, Form PTO-1449 and copies of the missing documents.

Applicant will provide this information shortly.

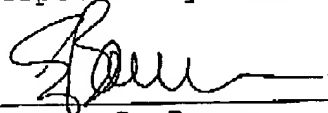
This paper represents an earnest attempt at advancing prosecution on the merits, and thus Applicant respectfully submits that entry hereof is proper.

In view of the above, favorable reconsideration and passage to issue of this application are respectfully requested.

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Applicant's undersigned attorney may be reached by telephone at (860) 571-5001, by facsimile at (860) 571-5028 or by e-mail at steve.bauman@us.henkel.com. All correspondence should be directed to the address given below.

Respectfully submitted,



Steven C. Bauman
Attorney for Applicant
Registration No. 33,832

HENKEL CORPORATION
Legal Department
1001 Trout Brook Crossing
Rocky Hill, Connecticut 06067